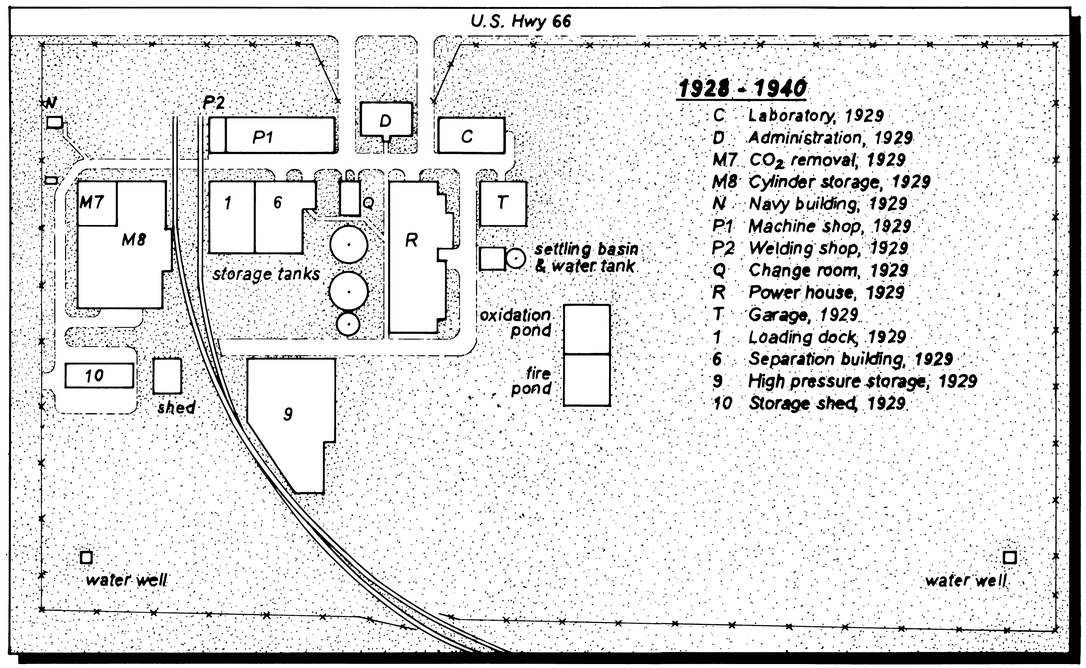
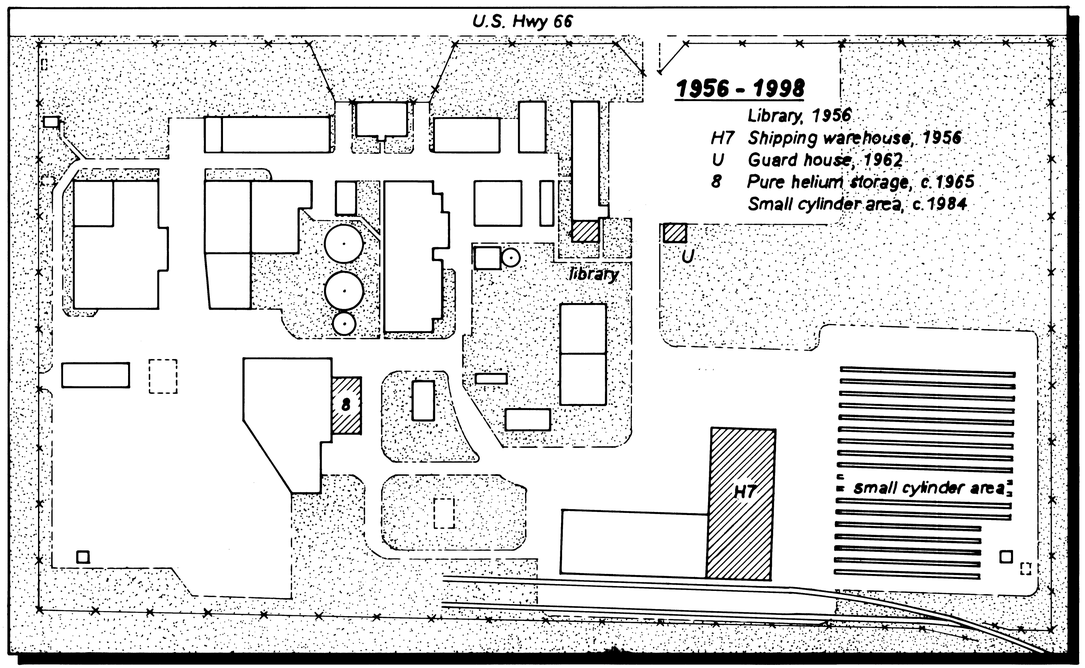
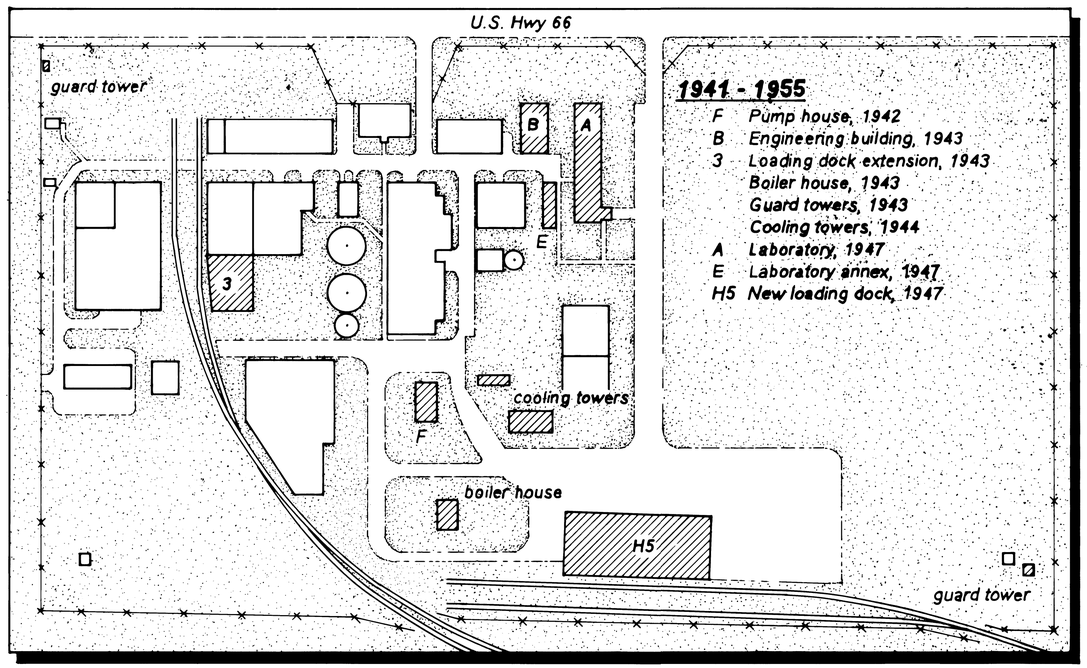
SITE DEVELOPMENT
Amarillo Helium Plant

0 100 200
Feet 1" = 85'
0 30 60
Meters (1:1000)







1928 - 1940

The U.S. Bureau of Mines decided to move the federal helium program to Amarillo, Texas in the mid-1920's, as the Petrolia gas field at Fort Worth neared depletion. Acquiring the necessary land and water rights, and access to transportation links, the Bureau contracted with James T. Taylor & Company in 1928 to build the federal helium plant in Soncy, just west of Amarillo. Under direction of Dr. Clifford W. Seibel and his assistant George Erlandson, Taylor & Company completed construction in 1929.

Initially, the natural gas arrived at the northwest corner of the facility to be fed into the Carbon Dioxide (CO_2) Removal units. From there, the gas was pumped to the Separation Building. After the helium reached 98 percent purity, it was stored in high-pressure small cylinders and rail tank cars for shipment to naval installations across the United States. The limited helium demands of the 1930's, five to seven million cubic feet (mmcf) per year, were met easily by this single Bureau of Mines helium plant.

1941 - 1955

In anticipation of the United States' entry into World War II, President Franklin D. Roosevelt authorized the purchase of 200 new dirigibles for defense use. Congress appropriated $17 million to expand the federal helium production effort. The Bureau of Mines built four new plants (Exell, Otis, Cunningham and Navajo), and funded a major expansion at Amarillo to meet wartime demand of nearly 500 mmcf per year. In 1942, the Amarillo Helium Plant received a new separation unit, increasing its production to 36 mmcf a year. During 1942-43, the plant acquired several new research, production and shipping facilities. With this expansion, Amarillo continued producing over 30 mmcf of helium per year through the 1950's.

1956 - 1998

The onset of the Cold War and the "space race" assured continued government demand for helium. Amarillo was the premier helium research facility, with the majority of production at Exell and the other plants. Scientists developed heliarc welding, a method of using an inert atmosphere of helium to weld the new strategic metals of titanium and zirconium. NASA, the Atomic Energy Commission, and researchers used helium for leak detection and fuel propulsion in atomic weapons and spacecraft. Although production ceased at the Amarillo plant in 1970, research and development continued there into the 1990's.

The Helium Privatization Act of 1996 effectively mandated private industry to meet all future demands for helium. With this act, the U.S. Bureau of Mines Helium Activities permanently ceased operations. The agency's functions at the Amarillo and Exell helium plants transferred to the Bureau of Land Management (BLM). In 1998, the BLM sought assistance from the National Park Service and entered into an agreement with that agency to provide for a survey and inventory of historic and archeological properties. The survey and the Historic American Engineering Record (HAER) documentation project work to mitigate the loss, due to transfer of ownership, of these former federal properties.

DELINEATED BY: Suzanne Rowe Covington 2001
HELIUM ACTIVITIES RECORDING PROJECT
NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR

U.S. BUREAU OF MINES, HELIUM PLANTS, AMARILLO HELIUM PLANT 1929
10,001 INTERCHANGE 552
POTTER COUNTY
TEXAS
AMARILLO

HISTORIC AMERICAN ENGINEERING RECORD TX-105 A
SHEET 2 of 4

IF REPRODUCED, PLEASE CREDIT: HISTORIC AMERICAN ENGINEERING RECORD, NATIONAL PARK SERVICE, NAME OF DELINEATOR, DATE OF THE DRAWING